

PROJECT OUTCOME SUMMARY

Feasibility study to describe the prevalence and characterisation of Aortic Stenosis in Australian General Practice

- ▷ MedicineInsight is the leading large scale general practice data set established to support quality improvement in Australian primary care and post-market surveillance of medicines, it is developed and managed by NPS MedicineWise. MedicineInsight extracts longitudinal, de-identified, whole-of-practice data from the clinical information system (CIS) of consenting general practices to connect patient conditions with treatments and their outcomes.
- ▷ Medtronic sponsored VentureWise to conduct a feasibility study using MedicineInsight data to explore treatment pathways for patients with symptomatic severe Aortic Stenosis (AS) in primary care. NPS MedicineWise was commissioned by VentureWise to analyse MedicineInsight data and report on their findings. NPS MedicineWise undertook this project with complete independence from Medtronic, and Medtronic had no influence or involvement in the project.
- ▷ Information from the feasibility study may be used as the basis for further research, to support ongoing discussions with the Medical Services Advisory Committee (MSAC) and may help to inform future research including assessment of patient reported outcomes, or the development of data-driven education interventions. As this was a feasibility study to understand what data was available within MedicineInsight about AS, the project team did not engage with consumers about this project. However, any future, more in-depth research project will engage with consumers, clinicians and other relevant stakeholders.
- ▷ Approval from the MedicineInsight Data Governance Committee was obtained on 22 February 2018 to explore the MedicineInsight data, providing preliminary understanding of prevalence of AS in primary care and specific population characteristics, including those used to guide clinical management.
- ▷ The feasibility study showed that MedicineInsight can be used to investigate AS patients, their symptoms, management and surgical risk.
- ▷ Using MedicineInsight data, the following was found:
 - 5900 patients (0.85%) 55 years and older had a diagnosis of AS recorded between July 2012 and June 2017 which is lower than reported in international studies.
 - 9 out of 10 patients with AS (86.4%) were aged over 70 years.
 - AS prevalence was higher among males compared with females.
 - Patients with AS had a higher rate of heart failure compared to those without AS.
 - Where severity was recorded, almost one third of patients had severe disease.
 - One in 10 patients with AS had a record of dyspnoea, one in 12 had a record of angina and one in 26 patients had a record of syncope.
 - 11.2% had a history of moderate to severe renal disease, and 10.2% a history of stroke or transient ischemic attack (TIA) and 1.4% had all three risk factors.
 - Almost half of the patients with AS (45%) had a record of a referral to a cardiac clinic, cardiology physician or cardiothoracic surgeon.
 - Three quarters of patients were prescribed either an angiotensin converting enzyme inhibitor (ACE-I) or an angiotensin-II-receptor blocker (ARB) in the study period.

- Just over one in five patients with AS had a record of any type of aortic valve procedure, and 1.1% had a record of a TAVR or TAVR and 0.9% had a record of balloon valvuloplasty.
- AS patients were more likely to have experienced AS symptoms, have had medical or surgical management, and be referred to a cardiology specialist or clinic than patients without a record of AS.
- Just over 20% of AS patients had neither a record of aortic valve surgery nor a record of a prescription for an ACE-I and/or ARB.

Suggested citation: MedicineInsight. Project Outcome Summary – Feasibility study to describe the prevalence and characterisation of Aortic Stenosis in Australian General Practice. Sydney: NPS MedicineWise, July 2018.

More information: for more information about this project, access to the full report or MedicineInsight enquiries, please visit <https://www.nps.org.au/medicine-insight> or email DataGovernance@nps.org.au